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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,198

09/11/2003

Keiji Shioda

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9433

1933

7590

04/14/2005

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EXAMINER

NGUYEN, THONG Q

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/662,198	Applicant(s) SHIODA ET AL.	
	Examiner Thong Q. Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/663,676.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/11/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The present application was subjected to a restriction requirement (see Office action of 12/29/2004). In response to the restriction requirement, applicant has filed an election on 1/14/2005 to elect the species (I) including claims 1-15. As a result of applicant's election, claims 16-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/14/2005.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/663,676, filed on 1/14/2000.

Drawings

3. The drawings contain fifty sheets of figures 1-75B were received on 9/11/2003. These drawings are object by the Examiner for the following reason(s).

4. The drawings are objected to because figure 9 contains a typo. In other words, the term "DETCTING" appeared in the box labeled as "56" should be changed to --DETECTING--. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The

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figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

6. The disclosure is objected to because of the following informalities: Page 1: The following phrase thereof --, now U.S. Patent No. 6,661,571. -- should be added after "18, 2000". Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 12 is rejected under 35 USC 112, first paragraph because the specification does not disclose the use of a projecting system for projecting both a first image displayed by a first display means and a part of optical image provided by an observation optical system in the field of view of the observation means as recited in the feature thereof "wherein the image...the first image" (claim 12, lines 2-3). Applicant should note that the specification disclose the use of the endoscope for providing an image different from the image provided by the microscope and a projecting system for superimposing the endoscope image onto the operating microscope image.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-7, 9-11 and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by Morita (Japanese reference No. 10-333047 A, submitted by applicant).

Morita discloses an operating microscope comprising an image projecting optical system for producing images derived from an endoscope optical system which is

provided separate from the operating microscope, into an eyepiece optical system of the operating microscope so that the operating microscope image and the endoscope image can be simultaneously observed. Morita also discloses the use of at least one other optical display system for providing other images related to the object which images of the other display system are projected into the field of view of the operating microscope wherein the operating microscope image, the endoscope image and the image provided by the other display system are different from each other.

In particular, in the embodiment described in columns 20-21 and shown in figures 27A-27B, the operating microscope comprises an observation optical system (49) for forming an optical image of an object including an affected region and an observation means (48, 153) for observing the operating microscope image (152) in a field of view of the observational optical system. The first display means comprises an endoscope (37) with a camera, a camera adapter (43), a camera control unit (43) for displaying images of an object in the operation part (51) in a liquid crystal display (148) via an image processing unit (145). The other display systems for observably displaying other images are in the form of a waveform monitor (146) and CT system (147) wherein the images provided by the monitor (146) and/or CT system (147) are projected into the liquid crystal element (148) via the same image processing unit (145). Regarding to the images superimposing on the operating microscope image, in columns 20-21, Morita discloses that the images provided by the endoscope, the waveform monitor and

the CT system are superimposed onto the operating microscope images and the sizes and contents of the operating microscope image (152), the endoscope image (155) and the waveform image (156) or the CT image (157) are different from the others. Regarding to the feature that each display means/system comprises an image projecting optical system, that feature is considered as inherent feature from the structure of the device provided by Morita absent specific structure related to the projecting optical system recited in the present claims. For instance, the cables used to transmit the image from each of the endoscope (37), the waveform monitor (146) and the CT system (147) to the image processing units for displaying the images on the liquid crystal element (148) are considered as optical system for projecting such images onto the liquid crystal element (148).

Regarding to the feature related to a computer for controlling the size of the image provided by the endoscope, it is noted that the use of a camera control unit (41) for controlling the image provided by the endoscope (37) to the image processing unit (145) is inherently capable to vary the size of the image dependent upon the magnification of the optical microscope. The support for that conclusion is found in the other embodiments provided by Morita when he discloses the combination of an operating microscope and an endoscope which image of the endoscope is large in comparison to the operation microscope image (see the embodiment shown in figure 12). The size of the endoscope image as shown in the embodiment of the figure 27A in comparison to the

endoscope image as shown in the embodiment of figure 12 is an evidence to show that the size of the endoscope image is able to vary by the operation of the camera control unit (41) and the image processing unit (145).

Regarding to the feature that the second image in the form of a marker image, such feature is also considered as an inherent feature from the images superimposed into the operating microscope image provided by either the waveform monitor (146) or the CT system (147) absent the specific structure of the so-called "marker image" recited in the present claim. For instance, the CT images can include a graph with scales or any medical symbols related to the object to be operated/observed to provide more information related to the object to the observer.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita in view of Tsumanuma et al (U.S. Patent No. 5,742,429).

The operating microscope comprising an image projecting optical system for producing images derived from an observation optical system of the microscope, an endoscope optical system and at least one other optical display system for providing other images related to the object which images can be simultaneously

observed as provided by Morita meet all of the features recited in claim 14 except that he does not clearly state the use of a switch for independently switching display/non-display of the endoscope and the waveform monitor/CT system. However, the use of a switch for independently switching the operation of an endoscope for display/non-display the image of the endoscope is known to one skilled in the art. In other words, one skilled in the art will know to use a switch to activate or deactivate the operation of a tool or a system by turning ON or OFF the tool or the system. An example of use a switch for activation and deactivation the operation of an endoscope in a system having an operation microscope and an endoscope is disclosed in the art of Tsumanuma et al. See column 8, lines 38-48. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize any switching systems for switching the display/non-display of any images provided by systems/equipments used with an operation microscope including the switch suggested by Tsumanuma et al for the purpose of displaying a particular image of the object or information necessary to observe by an observer in a particular time.

13. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita in view of Truppe (U.S. Patent No. 5,704,897)

The operating microscope comprising an image projecting optical system for producing images derived from an observation optical system of the microscope, an endoscope optical system and at least one other optical display system for providing other images related to the object which images can be simultaneously

observed as provided by Morita meet all of the features recited in claims 8 and 15 except that he does not clearly state the first image provided by the endoscope includes image indicative of position of the endoscope. However, the use of an endoscope having a position camera attached thereto for providing information related to the position of the endoscope and for projecting the information onto the visual field of the image provided by the endoscope is disclosed in the art as can be seen in the system provided by Truppe. See columns 5-6. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the system as provided by Morita by using an endoscope having a camera with a position sensor as suggested by Truppe for the purpose of providing position data of the endoscope in the visual field of the operator.

Conclusion

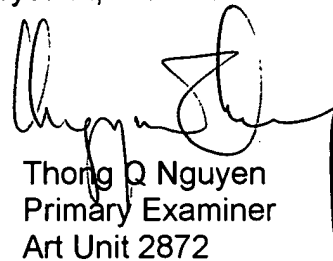
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen
Primary Examiner
Art Unit 2872
